Visual Resources 7/

A significant issue raised by the public during scoping involves the potential effects on landscapes as seen from sensitive viewing areas (homes, travel corridors, overlooks, etc.) and whether the alternative corridors would be able to meet forest plan standards and guidelines for visual quality.

This analysis identifies, describes and maps significant visual resources that may be affected by the construction, operation and maintenance of the proposed 115 kV transmission line proposal and its alternatives, and analyzes the potential visual impacts. Baseline data have been recorded in sufficient detail to assess direct and indirect impacts of the Ojo Caliente proposed power line and alternatives.

This analysis addresses an area of visual influence containing the alternative corridors, as well as the area associated with construction and operation activities. The visual analysis area is defined by the relationship of the project facilities and activities for each alternative to the surrounding topographic and vegetation patterns. The purpose of the analysis was to describe the existing visual condition of the visual analysis area and identify potential impacts to visual resources and modifications to present views.

The visual resource analysis follows guidelines established from both the Forest Service's 1974 Visual Management System (VMS) and the more recent 1995 Scenery Management System (SMS) and the Visual Resource Management System used by BLM. [274] Impacts to visual aesthetics would be direct, adverse and long-term (lasting for the life of the project). Construction and operation activities can typically result in visual contrasts that may affect:

- The quality of aesthetic resources.
- Scenic resources having rare or unique value.
- The view from, or the visual setting of, designated or planned parks, wilderness, or natural areas, or other visually sensitive land uses.
- The view from, or the visual setting of, travel ways.
- The view from, or the visual setting of, established, designated, or planned recreation, education, preservation, or scientific facility, use area activity, communities, and viewpoint or vista.

For this analysis, the quality of the visual environment is based on the synthesis of scenic quality and visual sensitivity. The measure of the adverse response of the visual and aesthetic resources is defined as visual contrast. The degree to which the project would adversely affect the aesthetic quality of the landscape depends on the amount of adverse visual contrast that would be created by the project in relation to the existing landscape character and visual condition. The amount of contrast between the proposed project and the existing landscape character was measured by separating the landscape into its major features—landform, vegetation and structures—and then predicting the project-related magnitude of change in contrast of each of the basic visual elements (form, line, color, and texture) to each of the features.

The "Visual and Recreation Resources Report" [274] used a compilation of four visual resource inventories:

1. Existing visual condition;

2. Key observation points and associated viewsheds;
3. Visual absorption capability; and
4. Visual quality objectives/levels.

The analysis in this document focuses on visual quality objectives/levels and key observation points.

In the early to mid-1980s, the Carson National Forest conducted a forest-wide inventory based on the Visual Management System. The initial forest-wide visual quality inventory was compiled using topographic map interpretation and some field verification. It included an assessment of variety classes, sensitivity levels and distance zones, combined through a matrix to determine the existing visual quality for the forest. The forest plan adopted the existing visual quality as the visual quality objectives (VQOs) for the Carson National Forest over the life of the plan.

The forest-wide visual inventory was at a broad-scale level. The Visual Management System recognized the need to refine the inventory when assessing visual quality at a site-specific level. The EIS study team reviewed, refined and revised the visual quality objectives using orthophotographic maps and additional field verification for this project-level analysis.

Since “objectives” cannot be assigned to non-Federal lands, this analysis has mapped the existing visual quality levels for these State and private areas, and assessed what changes in visual quality would occur with the implementation of any alternative.

Key observation points were identified and mapped for both Federal and non-Federal lands and are used in the cumulative effects analysis.

The following considerations were used as the critical physical and perceptual factors in identifying, describing, and mapping visual resources in the study area:

- **Expected Images Exist.** Although studies of people’s images resulted in varied response from one geographic region to another, one factor generally remains constant—people expect to see a naturally appearing landscape character within each general region.
- **Aesthetic Concern Varies.** Aesthetic concern varies among land users. People most concerned about aesthetics are those who are in an area because of, or who have a major interest in, the scenic qualities or amenities. This group of people may include recreation area visitors, travelers or residents.
- **View Duration is Critical.** The visual impacts of project activities increase as the duration of view increases.
- **Number of Viewers is Critical.** The visual impacts of project activities generally become more important as the actual or potential number of viewers increases, particularly along travel corridors, developed recreation areas, and residential areas and communities.
- **Viewing Distance is Critical.** The visual impact of project activities usually increases as viewing distance decreases.
- **Diverse Landscape Character is Important.** All landscapes have a definable character. Those with a character having greater variety or diversity have the greater potential for high scenic value.

- **Retention of Character is Desirable.** Landscapes with distinctive variety in form, line, color, and/or texture should be retained and perpetuated.
- **Focus of Viewer Attention is Critical.** The dominance and arrangement of elements in the landscape can focus viewers' attention to certain areas. Distinctive features (such as major, unusual landforms, water forms, and framed views) are typical areas that attract attention. The potential for visual impacts is higher in areas that are the focus of viewers' attention.
- **Alteration of Character.** Managed landscapes with little or no visual variety may be enhanced by alteration.

Affected Environment

Certain terms (Visual Resource Inventory Components) used in this effects analysis are better defined here than in the glossary.

Visual Dominance Elements

Four visual elements compete for dominance in any landscape:

Form. Landscape forms are determined by topography and vegetative pattern. If either of these is opposed by utility structures, the visual impact will be negative. The forms of many utility structures are geometric, forceful and large. They often contrast with, and visually dominate, the more subtle forms of the landscape.

Line. Line is anything that is arranged in a row or sequence. It can be the silhouette of a form, the edge of a meadow, a ridge line, a tree trunk, a river, the path of an avalanche. Overhead power lines and access roads are among the more common types of "linear" utilities. Such installations create the least contrast with the landscape when they are sited and designed to take advantage of the natural lines of their surroundings.

Color. Color enables us to distinguish among objects of identical form, line and texture. It can also be used to subdue differences between manmade and natural objects. To be successful, color selection for utilities must be based on a study of local conditions and how the colored object will be seen from crucial points of view. Foreground colors tend to be distinct. Background colors are usually muted blue-greens and grays. The texture of a surface affects its color—the more texture, the darker the color tone. Colors that blend well with the background may appear almost black when seen in the shade.

Texture. Textures in the landscape are determined by geology, soils, topography and vegetation. The more variety there is in the landscape, the easier it is to plan and design a utility that is visually subordinate to its natural surroundings. Natural textures can seldom be matched in utility structures. This makes it doubly important that a utility be designed and located to minimize its visual impact (USDA 1975a).

All four elements are usually present but exert differing degrees of visual influence, power or dominance. To diminish the contrast between utilities and their surroundings, advantage must be taken of landscape features in the location and design of all needed installations.

Landscape Character

The National Forest Visual Management System requires a frame of reference and criteria for the identification and classification of scenic quality (variety class). The establishment of landscape character types that provide the frame of reference for the variety class criteria does this. Landscape character types are geographical areas that have similar visual characteristics of landform, vegetation and water form. No single landscape feature alone determines a character type; all features combine to create a certain visual image, but landform is usually more influential than the other characteristics. The character types are developed as a frame of reference and must be broad enough to logically stratify into differing degrees of diversity.

The study area is located in two character types—the San Juan and the Mexican Highland in New Mexico. The Mexican Highland type is further subdivided into the eastern and western types. A portion of the project area is in the Mexican Highland Eastern character subtype; the remainder of the project area is in the San Juan character type. The BLM uses a designation referred to as the "Southern Rocky Mountains." Since the Forest Service designations are at a finer scale and are compatible, they were used in the analysis.

The San Juan character type is described as a volcanic area of complex mountains separated by intermontane basins. The Mexican Highland Eastern character type is piñon-juniper woodland; plains grassland and sagebrush dominate the basins. Vast, flat plain broken by the Rio Grande Valley and several isolated mountain ranges. Piñon-juniper woodlands dominate the foothills and lower mountains.

Visual Quality Objectives/Visual Quality Levels

Forest plan-adopted visual quality objectives (VQOs) are standards by which the visual resources of an area are managed on National Forest System lands. VQO categories are determined by synthesizing (in matrices) inventories of variety classes (i.e., scenic quality), visual sensitivity and distance zones. Each VQO describes the degree of acceptable modification in the basic elements (line, form, color and texture) of the landscape. The acceptable degree of alteration is judged by evaluating the amount of visual contrast created by the landscape alteration to the surrounding natural landscape. Although non-Federal lands are not bound by Forest Service visual management guidelines, these non-Federal lands were assigned a similar inventoried VQL (visual quality level) in order to evaluate consistently the visual resources of those lands and to compare them with Forest Service managed lands.

Four classes of VQOs/VQLs were identified in the study area: Retention (R), Partial Retention (PR), Modification (M) and Maximum Modification (MM). Figure 17 shows visual quality determined at a site-specific or project level, along with the corresponding crosswalk to the BLM classification system.

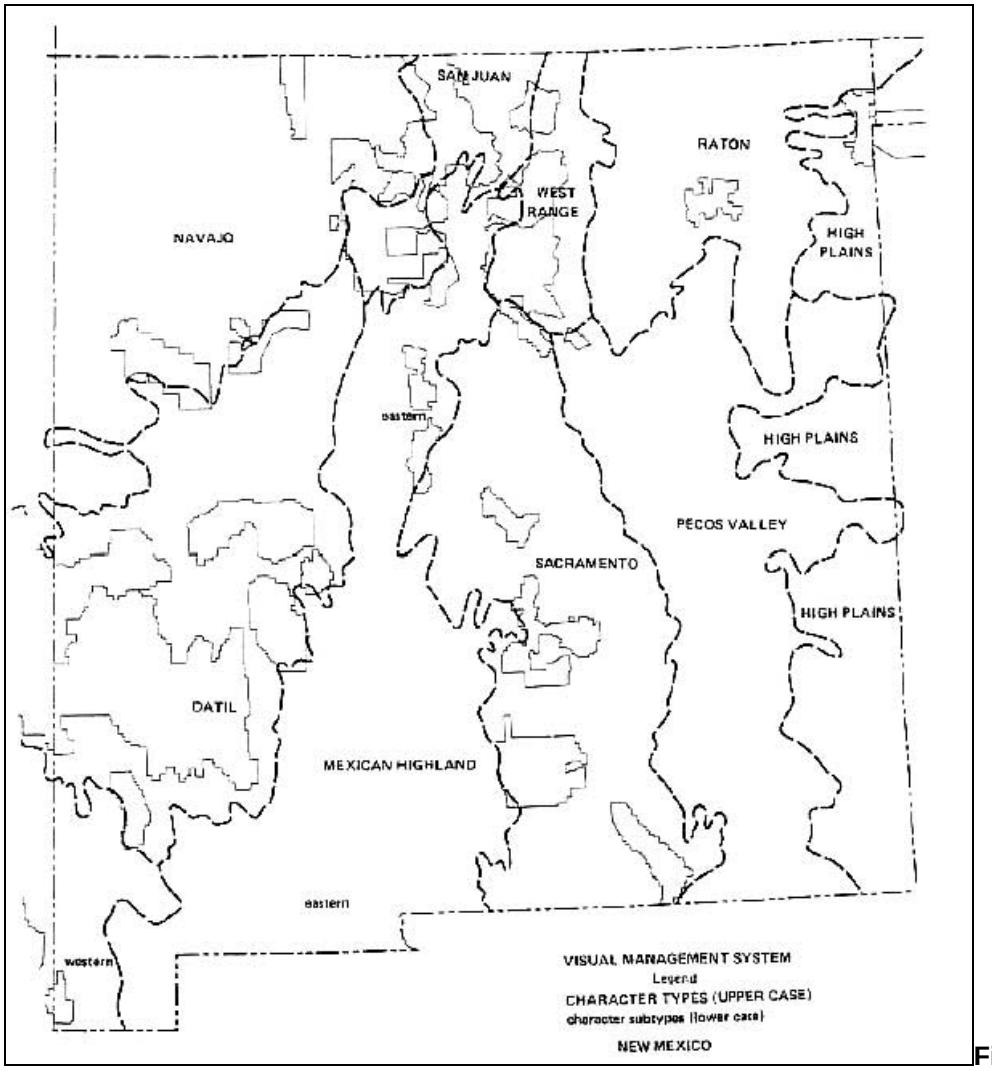

Figure 16. Landscape character types of New Mexico with study area highlighted (USDA 19075b).

Table 21. Visual quality definitions

Retention	In general, management (human) activities are not evident to the casual forest visitor. BLM Class I.
Partial Retention	In general, management (human) activities may be evident, but must remain subordinate to the characteristic landscape. BLM Class II.
Modification	Management (human) activities in foreground and middle ground are dominant but appear natural. BLM Class III.
Maximum Modification	Management (human) activity may dominate the characteristic landscape, but should appear as a natural occurrence when viewed as background. BLM Class IV.

Along U.S. 285, between the 90-degree turn and the western boundary of the national forest near Ojo Caliente, the visual quality is Retention to the north and Modification to the south. The

highway is wide enough that the existing 25 kV line along the south side of the highway can easily be seen in the foreground looking south, but not to the north. Although the existing line can be considered a dominant feature, the wood poles spaced next to the highway and the presence of vegetation under the line (not a bare swath) create a natural appearance. Since private lands along U.S. 285 are within the same area as the national forest, they are considered to have similar visual quality.

In the same area of U.S. 285, the middle ground is obscured by hills and ridges and is, therefore, considered Partial Retention. Activities may be evident, but must remain subordinate to the characteristic landscape from common travel ways and viewpoints. The exceptions are two small areas of Retention located on the western flank of Cerro Azul and Mesa Vibora; these distinct features can be seen from U.S. 285 in the middle ground.

Looking southeast from the 90-degree bend, topography and vegetation completely screen the middle ground. Activities may dominate their immediate surroundings, but would not be seen from U.S. 285. A visual quality of Modification extends out to within one-half mile of the existing 345 kV/115 kV corridor. As the two utility lines traverse across the landscape to the south and east of U.S. 285, visual quality changes to Maximum Modification for one-half mile on either side of the utility corridor.

Along NM 567 west of Carson to the junction with U.S. 285, the road traverses through an area that visually is not very interesting and portions were once type-converted from piñon-juniper woodland to grass. The visual quality for this area is calculated to be Modification. Visual quality from private lands east of the forest boundary to the 345 kV/115 kV intersection with NM 567 is Maximum Modification.

Right along U.S. 285 north of the Comanche Rim to Tres Piedras, visual quality is considered Partial Retention, with a few pockets of either Modification or Maximum Modification where private lands are developed. From the highway in the middle ground, private residences and structures can be seen on the slopes where visual quality is Modification.

The “Carson Land and Resource Management Plan” (hereby called the forest plan) provides guidance for all natural resource management activities on the Carson National Forest. The National Forest Management Act requires all projects and activities to be consistent with the forest plan. The forest plan has been reviewed as it relates to visual quality on the Carson National Forest. The forest plan states,

Manage the visual resources on the forest according to the Visual Quality Objectives listed on inventory maps. Utilize forest management activities to increase visual variety. The overall goal is to meet the planned objective, however, this objective may be reduced by one level to meet other resource goals on a case-by-case basis. [5, Visual-1-2]

Key Observation Points

Key observation points (KOPs) are representative viewing locations where the project facilities are visible in the surrounding landscape and are an important factor in evaluating the visual impacts of proposed landscape alterations. KOPs were identified along study area travel corridors (roads), post office and in other sensitive land use areas, such as residential locations and communities. Factors considered in selecting KOPs included:

- Number of viewers
- Sensitivity of viewers
- Duration of view
- Viewing distance and relative project size
- Season of use

Determining the visibility of an alternative corridor from its surrounding landscape is a central component of a visual analysis, and plays an important role in evaluating potential visual impacts and in guiding mitigation efforts. Figure 17 displays the location of each key observation point. Table 22 displays the sensitivity level, the VQO/VQL rating, type of viewpoint, typical viewer, duration of view and season of view.

Table 22. Key observation points within the study area

KOP	Feature	Jurisdiction	Sensitivity Rating	VQO/ VQL	View Points	Typical Viewer	Speed of Travel	Viewing Season
1	Intersection of NM 567 and existing power lines in Carson	Non-Federal	1	Maximum Modification	Roads, Dwellings	Resident, Traveler	Moderate, about 40 mph.	All
2	Post Office in Carson on NM 567	Non-Federal	1	Maximum Modification	Roads, Dwellings	Resident, Traveler	Slow, about 15 mph.	All
3	U.S. 285 and Comanche Rim.	Federal	1	Retention (N) Modification (S)	Road	Traveler	Fast, about 60 mph	All
4	Vista point on U.S. 285 where Cerro Azul and Mesa Vibora are both in view.	Federal	2	Retention (N) Modification (S)	Road	Traveler	Fast, about 60 mph	All
5	Voltage regulators at the NM 111 and U.S. 285 intersection in Ojo Caliente	Federal	2	Maximum Modification	Road, Dwellings	Resident, Traveler	Moderate, about 40 mph.	All
6	U.S. 285 at Cerro Mojino	Federal	2	Partial Retention	Road, Dwellings	Resident, Traveler	Fast, about 60 mph	All
7	West Rim Trail and NM 567	Federal	Medium (2)	BLM Class II (Retention) to east, Class III to west (Modification to Rural)	Road, Trail	Traveler, Hiker	Slow, about 3 mph to 15 mph	All

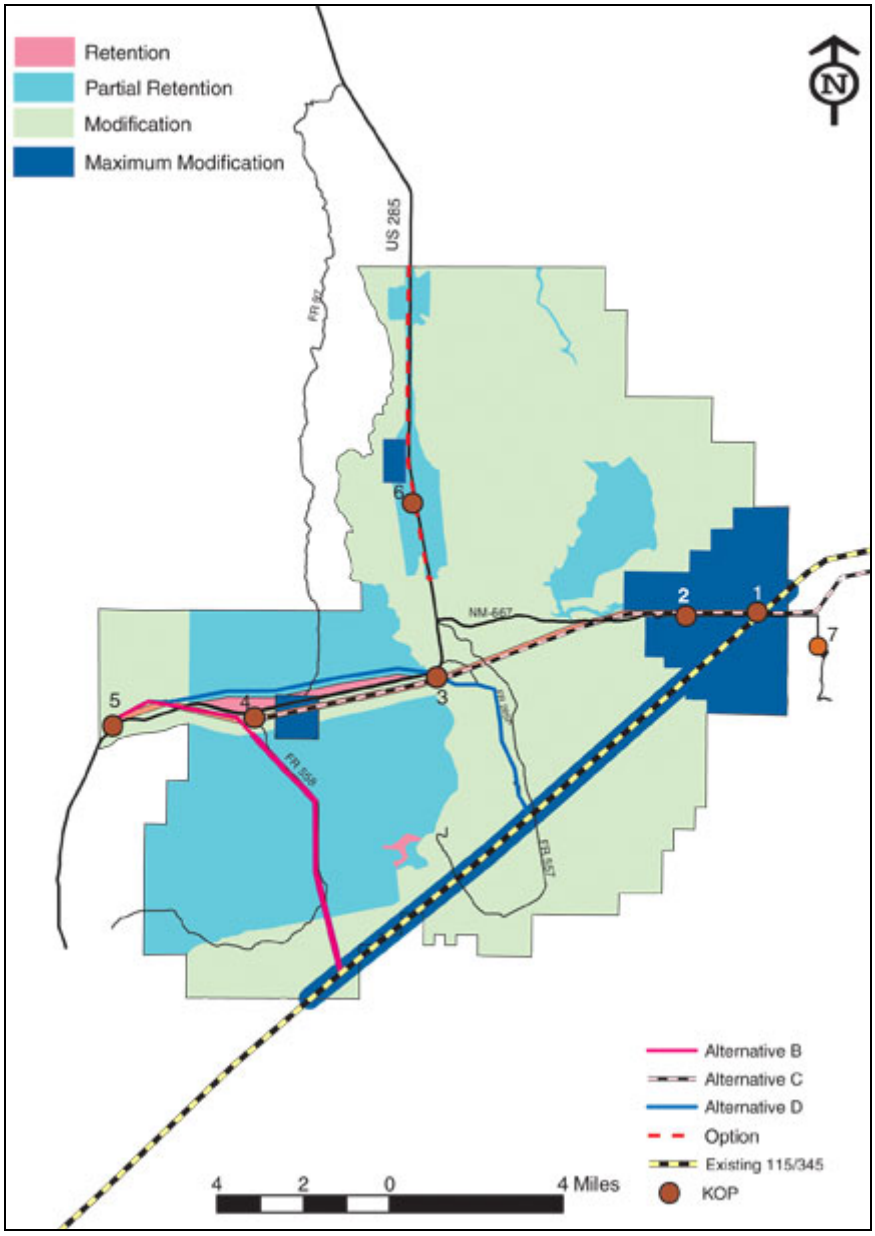

Figure 17. Existing visual quality objectives/levels and key observation points identified within the study area.

KOP 1: This key observation point is located in the community of Carson. The existing 345/115 kV corridor crosses NM 567 in the Carson community west of the intersection of the Rim Road and NM 567. At this KOP looking from directly under the power lines, the lines can be seen in a distance running in a straight line to the southwest and northeast. The view to the north is scattered occupied dwellings and a travel route (Rim Road) for the community to access Taos; to the east is scattered occupied dwellings; to the south is also scattered occupied dwellings and a travel route for the community to access Taos; and west includes occupied dwellings and the old schoolhouse (National Historic Site). This KOP is within the view of the majority of residents of the Carson community on a daily basis. The existing visual quality at this point is Maximum

Modification—human activities dominate the landscape. The buildings, roads, and power lines are obvious, but the visual sensitivity level of local residents is high.

KOP 2: This key observation point is located at the Post Office located in the community of Carson. The Post Office functions as a community center, since most residents visit the building five to six times per week. The existing 25 kV utility corridor passes in front of the Post Office. Vehicles leaving the parking lot head north directly facing this line. The view to the north is toward new residences under construction and others occupied; to the east is scattered dwellings and the existing power line; to the south is more occupied dwellings and an access route to additional dwellings; and west is toward the national forest. The existing visual quality at this point is Maximum Modification—human activities dominate the landscape. The buildings, roads, and power lines are obvious, but the visual sensitivity level of local residents is high.

KOP 3: This key observation point is located on U.S. 285 at its intersection with Comanche Rim. Comanche Rim is a natural feature, the edge of a basaltic outflow. The drop from the Taos Junction area to the lower country to the west is dramatic. U.S. 285 makes a sweeping curve at this point changing direction from a general north-south alignment to east-west. The existing 25 kV line is on the south side of the road. A small drainage crosses the highway and runs in a general west-northwest, east-southeast direction. The country changes in elevation quickly. One proposed alternative would cross the highway at this point. The existing visual quality of the landscape to the north is Retention. The highway right-of-way, the existing distribution line, radio tower and two old borrow pits south of U.S. 285 put this area in Modification—human activities in foreground and middle ground are dominate but appear natural.

KOP 4: This key observation point is located at a point on U.S. 285 where the vista of Cerro Azul, Black Mesa and Mesa Vibora is able to be seen in its entirety. This panorama is visible for approximately 5 seconds at highway speeds. The view to the north is obstructed by vegetation and topography. Looking down U.S. 285 to the east and west is cleared right-of-way. To the south, the existing 25 kV power line is in the foreground, with Cerro Azul and Mesa Vibora in the background. In the middle ground, the landscape view to the south is Partial Retention. The immediate foreground is Modification since one looks across to the cleared right-of-way and under or through the existing 25 kV distribution line. Beyond the immediate foreground, the landscape changes to Partial Retention—human activities may be evident, but should remain subordinate to the characteristic landscape.

KOP 5: This key observation point is at the proposed substation location in Ojo Caliente. The current voltage regulators are just north and west of the NM 111 and U.S. 285 intersection and adjacent to the proposed substation location. This point is near other disturbed areas such as a propane distribution company, NM Department of Transportation maintenance yard and several dwellings, as well as near the Mesa Vista School complex. The view to the north looks up a drainage toward the Mesa Vista buildings; to the east is the gas company and the maintenance yard both atop the ridge; to the south are several dwellings visible across NM 111; and to the west is a ridge and parts of the Mesa Vista School. The area around this observation point is intruded by manmade structures. The existing visual quality at this point is Maximum Modification—human activities dominate the landscape. The school buildings, maintenance yard, business buildings, homes and roads are very obvious on the landscape.

KOP 6: This key observation point is on U.S. 285 near Cerro Mojino, where the proposed Tres Piedras Connection Option might be located. Private lands lie west of the highway. These private

lands have been converted to a ranching operation with vegetation type conversions of sagebrush to grass. The private lands are visually different from the surrounding national forest and are a focal point for travelers headed to the south coming out of a “tunnel” of piñon-juniper woodland. Cerro Mojino is a high, rounded peak rising from the sagebrush. The dramatic view at this point is to the east across a large opening with the Sangre de Cristo Mountains in the background. The view to the south also opens to a portion of the Sangre de Cristo range in the background. The view to the north is a highway corridor entering piñon-juniper woodland. The immediate foreground to the west is Modification, because of the development of private land. To the east, however, it is Partial Retention—human activities may be evident, but should remain subordinate to the characteristic landscape.

KOP 7: This key observation point is at the intersection of the West Rim Trail and NM 567 at the top of the rim on the west side of the Rio Grande Gorge. Private and Federal BLM lands lie on both sides of the highway. The private lands have been converted to a ranching operation with vegetation type of sagebrush and grass. The private lands are visually different from the surrounding Federal lands due to topography. The majority of the Federal lands are along or below the Rio Grande Gorge Rim to the east. The dramatic view at this point is to the east across the gorge with the Sangre de Cristo Mountains in the background. The view to the south also opens to a portion of the Sangre de Cristo range in the background. The view to the north along the gorge rim opens to a portion of the Sangre de Cristo range in the background. The existing 115/345 kV line lies to the west across the sagebrush flat. The connection to the 115 kV line is to the northwest. The country has a gradual rise to the west from the trail crossing at NM 567. This rise obscures the existing 345/115 kV lines in the area of the proposed connection.

Environmental Consequences

Screening or locating a power line corridor with power poles of about 60 to 65 feet in height in a landscape lacking overstory vegetation that equals or exceeds pole height can be difficult if not impossible. There is some topographic relief that would allow some mitigation or screening of the facilities from viewpoints in the action alternatives. Typically, power lines are difficult to impose on any landscape, and retain its characteristic without appearing unchanged. Viewer location is critical in relation to a facility—the closer the viewer is to the structure, the more impact it has on one’s senses. Generally a landscape view of one-quarter to one-half mile from the viewer’s eyes is considered the distance where details become fuzzy. Overhead items become nearly unnoticeable due to heights of dominate objects within one-quarter mile of the view and view angles needed to look over these objects.

The immediate corridor, the centerline plus one-quarter mile to each side, will have its current visual quality disturbed by placement of a power line. A reduction in visual quality would be limited to these corridors due to distance from viewing points.

A mitigation measure requiring the use of nonspecular conductors, natural color poles and onsite selection of pole locations will help reduce the visual impacts and is assumed for all action alternatives and the Tres Piedras Connection Option (MM VQ1). In addition, the Tres Piedras Connection would be a 25 kV distribution line. Poles would be between 30 to 40 feet high, instead of the 60 to 65 foot poles needed for Alternatives B-D. The utility structure for the Option would have no underbuild design and would only entail four lines.

For ease in analysis, each alternative is described in segments. These segments are identified on alternative maps. Segments will obviously be different for each alternative.

Alternative A – No Action

This alternative maintains the current condition. The 25 kV line would continue to exist in its present location. There would be no construction of a 115 kV power line and no change to the visual resources within the study area.

Alternative B – Black Mesa-Cerro Azul Tap

Table 23. Impacts of Alternative B on visual quality

	Segment B1	Segment B2
Existing Condition (area)	Partial Retention	Modification/Maximum Modification
Alternative B Implemented (corridor only)	Modification	Modification/Maximum Modification
Overall Designation Following Implementation (area)	Partial Retention	Modification/Maximum Modification

Segment B1: This first segment is where Alternative B would tap into the existing 115 kV line, within the 115 kV/345 kV corridor, 1.5 miles east of Black Mesa. Segment B1 runs north to northwest, where it would connect with the existing 25 kV along U.S. 285. This segment resides in the Mexican Highland Eastern landscape character type, which is piñon-juniper woodland, plains grassland and sagebrush dominating the basins. Piñon-juniper woodlands dominate the foothills and lower mountains. The location of this segment stays in Partial Retention for about 5.5 miles until it intersects with the U.S. 285 corridor.

Segment B1 is in varied piñon-juniper with some openings and trees reaching a maximum height of about 25 feet. Poles of 60 to 65 feet and conductors would be visible in the immediate area as this line travels across the landscape. The visible topographic relief would allow some site-specific placement to reduce the view of the line from one direction, but would be obvious from another location. The visual quality objective for the corridor in Segment B1 would change from Partial Retention to Modification. The visual quality for the overall broad area would be maintained as Partial Retention due to distances from the viewpoints.

As Alternative B traverses toward U.S. 285, the view from the highway provides another perspective of Segment B1. U.S. 285 is a heavily used route between north-central New Mexico and southern and south-central Colorado. It is estimated that more than 200 cars per day use this route. Short trees and low ridge lines bound the highway corridor, as well as the existing 25 kV line (on the south side) and several private dwellings. Travelers on U.S. 285 naturally look south toward the major landforms of Cerro Azul and Mesa Vibora, with the Sangre de Cristo Mountains further to the south. Viewed from a distance, the broad expanse of natural landscape between

these two major features appears with little evidence of man's influence. The only signs of human activity are some allotment fences and scattered roads, developed by past woodcutters, hunters or recreation use. When driving west along U.S. 285, the topographic relief obscures the panorama for an extended period (10 seconds or more). Except for approximately one-half mile along U.S. 285, where low ridges do not conceal the view, for several miles a traveler along U.S. 285 cannot see the entire vista. The higher portions of Cerro Azul, Mesa Vibora are visible, while their lower portions and the location of the proposed power line are generally not entirely visible.

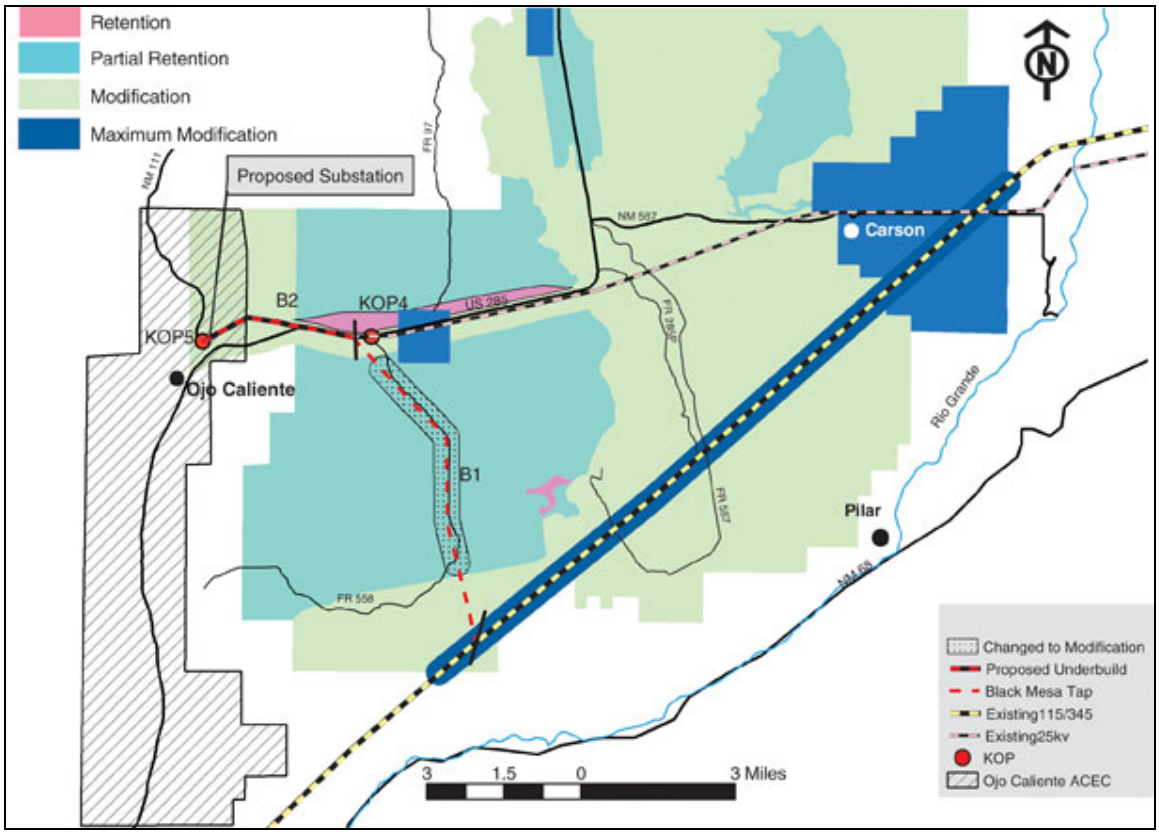

Figure 18. Visual quality impacts from Alternative B.

The U.S. 285 corridor is a cleared linear path of over 100 feet, between two right-of-way fences. Along the south side is the existing power line corridor. These alterations to the landscape cause this area to have a visual quality of Modification. The north side, however, has little evidence of man's activities and has a visual quality of Retention. As Segment B1 becomes visually noticeable in the foreground to travelers along U.S. 285 and connects into the existing 25 kV line, the visual quality in this area would remain Modification under Alternative B.

Another visual perspective for this segment would be from users climbing Cerro Azul (estimated to be less than 20 visitors per year) as they look across the Partial Retention landscape from a Retention zone. They would look at the proposed 115 kV line for Alternative B traversing across several miles. Minimizing clearing (except for pole locations) and use of nonspecular cables and treated wooden poles would reduce visual disturbance of a linear feature on the landscape. The distance from the viewpoint, Cerro Azul, would also mitigate the visual disturbance causing the power line to blend into the background. The overall visual quality of the middle ground from Cerro Azul would still be maintained at Partial Retention.

Figure 19. View to the south from Key Observation Point 4. This southerly view is the first view of Cerro Azul to Mesa Vibora. This depicts the area between the high points. Note existing power line in foreground, and the texture variation in the remainder of the picture.

Segment B2: Segment B2 is 3 miles along U.S. 285, from the point where Alternative B would connect to the existing 25 kV line into the proposed Ojo Caliente substation (Figure 19). Segment B2 is also in the Mexican Highland Eastern landscape character type, dominated by piñon-juniper woodland, plains grassland and sagebrush.

One mile of this segment is on national forest and about 2 miles is on BLM lands. Along the eastern portion of this segment, topographic relief and piñon-juniper trees provide limited screening. The view to the south is bounded by higher ground starting at the highway and going south. Because of the fairly low height of the existing line, it is evident from some areas and screened in other locations. On national forest, the existing line runs south of the highway and the visual quality is Modification. To the north of U.S. 285 on national forest, the visual quality is Retention. Near the forest boundary, the existing 25 kV line crosses the highway and extends westward on BLM lands before angling back south into Ojo Caliente. This northern strip, where the existing line can be seen from U.S. 285, is considered Class III to the Ojo Caliente Area of Critical Environmental Concern (ACEC) boundary (Modification in VQO). The small portion in the ACEC is a Class II with current disturbance levels giving the area a Class III rating.

At the eastern end of this segment, Alternative B would include poles with an underbuild to carry the 25 kV line. The primary view along Segment B2 is generally to the north. The view to the north is mesas and points. These mesas and points have lighter colors from their midslopes upward to their tops. The lighter colors tend to draw focus to the slopes. The lower slopes and flat ground between U.S. 285 and the mesas is covered with scattered piñon-juniper. The highway is on a bench above the flatter ground, giving the viewer a superior point of vision. The existing power line is not a focal point due to the position of the viewer and the background color and texture. Where Alternative B would follow the existing 25 kV corridor to the south, the visual quality on the north side of the highway on national forest would remain Retention.

The line would be more evident from the forest boundary through BLM lands because fewer options are available for screening, and Alternative B calls for crossing the road and paralleling it in the existing corridor to the proposed substation. There is much less overstory vegetation for screening. The topographic relief north of U.S. 285 tends to draw the eye to the large mesas and ridge lines. Even though the existing power line is fairly hidden with dark colors and dark vegetation coloring, the Mesa Vista School buildings and their color scheme quickly become the focal point for travelers on U.S. 285. The power line becomes nearly invisible as the school

buildings draw attention (Figure 20). In this area, the visual quality along the corridor and in the general area would be maintained as Modification. On national forest, the impact of Alternative B would maintain the visual quality as Modification. The area where Segment B2 terminates would continue to be Maximum Modification.

Figure 20. View to the west from U.S. 285 showing the Mesa Vista School complex and surrounding scenery. The bright colors draw attention to the school buildings. The existing power line is lost in the view. The power line is between the school and viewpoint.

Alternative C – Existing Corridor

Table 24. Impacts of Alternative C on visual quality

	Segment C1	Segment C2	Segment C3	Segment C4	Segment C5
Existing Condition (area)	Maximum Modification	Modification	Modification	Modification (U.S. 285 south)	Modification/ Maximum Modification
Alternative C Implemented (corridor)	Maximum Modification	Modification	Modification	Modification	Modification/ Maximum Modification
Overall Designation Following Implementation (area)	Maximum Modification	Modification	Modification	Modification	Modification/ Maximum Modification

Segment C1: This first segment begins where Alternative C would tap into the existing 115 kV line, within the 115 kV/345 kV corridor, in the vicinity of where it crosses NM 567 near Carson (KOP 1). It extends approximately 3 miles within the existing 25 kV corridor, along NM 567 to the national forest boundary. Segment C1 is entirely on private land. This segment is in the San Juan character type located in northern New Mexico. The terrain is unvaried, the vegetation is unvaried, and the waterform consists of ephemeral watercourses or is absent. KOP 7 is located at the edge of the Rio Grande Gorge rim at the intersection of NM 567 and the West Rim Trail. It is about 2.5 miles southeast of where Alternative C would connect with the existing 115 kV

transmission line. From this vantage point, the undulating terrain obscures the majority of both the 345 kV and 115 kV lines. Thus, it is unlikely that a new transmission line in the same location would be seen from this location.

Carson is comprised of scattered homes along and within sight of NM 567. Many other homes are located south and north of NM 567 and out of sight of the highway. A historic schoolhouse is located along the road. The existing 25 kV power line runs along the north side of NM 567. The residents of Carson see this power line on a daily basis, either traveling outside the community or to retrieve mail (KOP 2). Man has modified this area in many ways, including the development of buildings, roads and changes in vegetation type. The current visual quality level is considered Maximum Modification.

The full length of the line in Alternative C would be designed with an underbuild—poles carrying the existing 25 kV service, as well as the new 115 kV service. Poles would be 60- to 65-feet tall with 8 or more lines. No overstory vegetation exists along this route, so screening of the power line would not be possible. Since this line would be within an existing power line corridor, it would seem that the overall impact would be less than if it was proposed in a new location. However, there are already several power lines located closely together for the first one-half mile of this segment. Alternative C would add more structures and lines in an area that is very visible from a number of homes in the Carson area, as well as along NM 567. Alternative C along this segment would not change the Maximum Modification visual quality, but the visual impact on local residents would be much greater than in some locations where the visual quality level actually changes.

Figure 21. Looking west toward Carson and 115 /345 kV power line intersection with NM 567. Note different buildings, the majority of which are occupied dwellings. Key Observation Point 1 is at the intersection of the power lines and the highway.

Figure 22. Easterly view from parking lot of Key Observation Point 2 (Carson Post Office). Note overhead power lines, highway and the occupied dwellings in the area.

Segment C2: This segment starts east of the Carson National Forest boundary and runs approximately 1 mile to the NM 567 intersection with the power line crossing. This segment is in the San Juan character type located in northern New Mexico. The terrain is unvaried, the vegetation is unvaried and the waterform consists of ephemeral watercourses or is absent. Segment C2 follows the existing 25 kV line on the north side of NM 567 for a little over a mile to where it crosses the road and heads southwest. The visual quality objective for this short section is Modification near and on the south side of the highway. No overstory vegetation exists along this route so screening of the power line would not be possible. The impact of this alternative is anticipated to maintain the visual quality at Modification.

Segment C3: This segment follows the existing 25 kV corridor, where it diverges from NM 567 and extends northeast/southwest through Drake Ranch (private land) to where it intersects with U.S. 285. Segment C3 is approximately 2 miles and is not visible from NM 567 or U.S. 285. The area was formerly converted to grassland and is now mostly sagebrush. The visual quality is Modification in the portion viewed from NM 567 and through Drake Ranch.

Segment C4: This 5.5-mile segment is almost entirely adjacent to U.S. 285. It begins near the radio towers, where U.S. 285 makes a 90-degree change in direction, and ends near where Forest Road 558 intersects with U.S. 285 (KOP 4). This segment resides within the Mexican Highland Eastern landscape character type, which is piñon-juniper woodland, plains grassland and sagebrush dominating the basins. The vast, flat plain is broken by the Rio Grande Valley and several isolated mountain ranges. Piñon-juniper woodlands dominate the foothills and lower mountains. With the existing corridor south of the highway, the current visual quality is considered Modification. Existing visual quality for the north side of the highway is Retention.

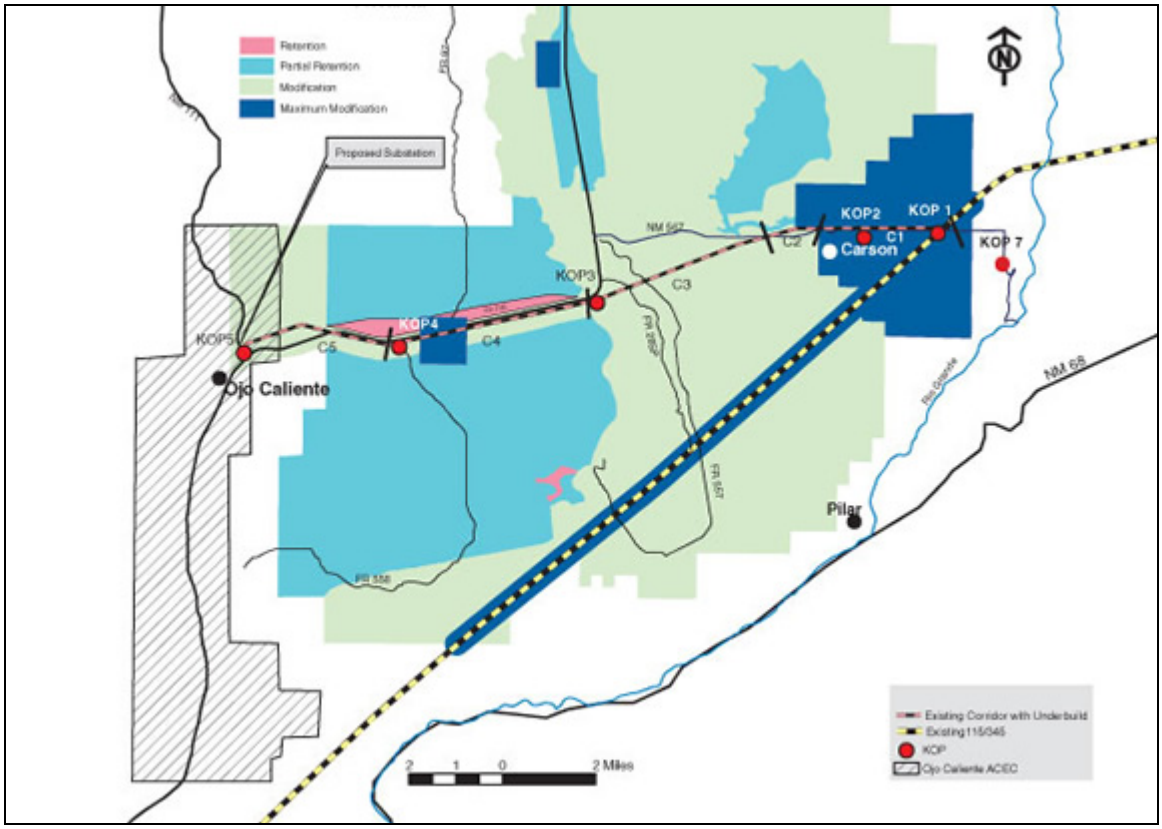

Figure 23. Visual quality impacts from Alternative C.

Figure 24. View from U.S. 285 looking to the south. Black Mesa is in the center of the photo (KOP 4). Note lack of detail in the middle and background.

The existing line varies from being very evident to insignificant along this segment. Location, topography and vegetation all contribute to reducing the impact of the existing line. Alternative C, however, would change the existing utility poles to between 60 and 65 feet, with additional conductors and underbuild. The taller poles would keep the line from easily being screened, so the structure would be more evident along the south side of U.S. 285. The view north would remain unhampered by utility corridors. The impact would keep the view to the south as Modification and Retention to the north.

Segment C5: This segment is the same as Segment B2. Alternative C would have the same impacts as Segment B2.

Alternative D – 285 P Tap

Table 25. Impacts of Alternative D on visual quality

	Segment D1	Segment D2	Segment D3		Segment D4	Segment D5
			Along U.S. 285 North	Proposed Corridor		
Existing Condition	Modification	Modification	Retention	Partial Retention	Modification	Modification
Alternative D Implemented (corridor)	Modification	Modification	Retention	Modification	Modification	Modification/ Maximum Modification
Overall designation following Implementation (area)	Modification	Partial Retention/ Modification	Retention	Retention/ Partial Retention	Modification/ Maximum Modification	Modification/ Maximum Modification

Segment D1: This segment begins where Alternative D would tap into the existing 115 kV line as it intersects with Forest Road 285P. This segment is in the San Juan landscape character type. Segment D1 traverses through sagebrush grasslands with scattered piñon-juniper for about 4 miles along the bottom of an elongated swale called Cañada Embudo. The segment ends just a mile south of U.S. 285 where the highway makes a 90-degree bend. The swale is approximately one-quarter mile wide and 50 to 60 feet deep. There are no features in this valley that draw visitors. The visual quality objective is Modification.

The vegetation is varied, with piñon-juniper on the ridgetops and sagebrush openings in the broad bottom of Cañada Embudo. The topography of the land, plus the height of the trees (approximately 25 feet) would permit poles to be screened from other roads, such as Forest Road 557. The power line would be plainly visible along the entire length of FR 285P. FR 285P would be used for accessing the power line corridor. Alternative D impact along this segment is anticipated to maintain a visual quality of Modification, immediately adjacent to both sides of FR 285P, as well as from viewpoints above the swale bottom.

Segment D2: About 1 mile long, this short segment begins at the ridgetop south of U.S. 285, runs down a small drainage, crosses the highway at approximately a 90-degree angle, continues on down the drainage and ends at the western edge of Section 5, Township 24 North, Range 10 East. All lands in this segment are located on the national forest. When traveling north, the scenery is basically a common view with little to pull the viewer, except for the Comanche Rim. Traveling

south, viewers are pulled to the mesas scattered to the west and south of the road, where the existing 25 kV line is located. The forest-wide visual inventory assesses this area as a convergence of Retention, Partial Retention and Modification. Actual visual quality for this segment meets the criteria of Modification.

This segments resides in the Mexican Highland Eastern landscape character type. South of the highway, Alternative D would transition from a single 115 kV to a 115 kV with a 25 kV underbuild. The proposed power line would be in a small drainage that is common in variety. While a transmission line with underbuild would be visible crossing U.S. 285, the crossing is at the sweeping curve where U.S. 285 descends from the Comanche Rim into the lower country. The change in direction of the road tends to hold the viewers eyes. The line would be in view from U.S. 285 for about 5 seconds. In addition the change in direction of the highway tends to be the focal point. Crossing the highway in this location in this alternative would also eliminate a crossing on BLM land near Ojo Caliente.

The line then crosses the road against a dark mottled background. The background at this point is a basalt outcrop with piñon and juniper trees scattered over the rock face. This same rock outcrop runs for several miles from this crossing to the north. The line would continue away from the highway down a drainage. The line would then change direction behind a low ridge about one-half mile north of U.S. 285. The visual quality on this segment would not change from Modification.

Figure 25. Looking down drainage where the proposed power line would cross U.S. 285 for Alternative D (KOP 3). The highway, in the right center edge of the photo, is making a sweeping turn at this point.

Segment D3: About 6 miles in length, this segment, starts at the western edge of Section 5, Township 24 North, Range 10 East and runs to where it crosses onto BLM lands north of Ojo Caliente. This segment also resides in the Mexican Highland Eastern landscape character type.

The segment is on the north side of U.S. 285, at a distance of one-quarter to one-half mile. When traveling north, the scenery is basically a common view with little to pull the viewer, except for the Comanche Rim. Traveling south, viewers are pulled to the mesas scattered to the west and south of the road, where the existing 25 kV line is located. Since the existing 25 kV line is not visible when looking to the north along this section of U.S. 285, visual quality in the foreground to the north, running parallel to this segment is Retention.

Alternative D was developed to address visual quality concerns with the proposed action. The power line proposed in Alternative D would be hidden or screened from view due to topography,

vegetation, and distance from the road. The dominant landforms to the south of the road are the focal point for visitors. Since the highway is buffered from the proposed power line location by a ridge, the corridor would not be entirely visible. Some portions may be visible for 10 seconds or less and would have little impact on the visual landscape. Even though the proposed location takes advantage of topographic features to hide the line, the separation of one-quarter to one-half mile from the road is an important factor. The visual impact of a line that far from U.S. 285 would be greatly reduced. The implementation of Alternative D would not change the classification of Retention to the north from U.S. 285.

The proposed location for Alternative D is nearly on the demarcation between Partial Retention and Retention. There are no features along this segment that draw visitors. In the immediate proximity of the corridor, the visual quality would change from Partial Retention to Modification.

Segment D4: This segment would begin where Segment D3 ends at the forest boundary and would cross BLM lands for about 2 miles to the proposed substation. This segment would have similar effects to Segment B2.

Segment D5: This segment begins where Segment D1 ends and D2 begins and the existing 25 kV corridor runs parallel to U.S. 285 on the south side of the highway. Segment D5 ends where the existing 25 kV corridor intersects with the proposed line in Alternative D on BLM lands. The visual quality of this segment is assessed as Modification.

Alternative D would remove the existing 25kV power line, enhancing the view to the south along this segment. Visual quality would actually change from Modification to Retention.

Figure 26. View to the north and east from the existing power line and U.S. 285 crossing, where Alternative D would tie into the existing 25 kV line. Note the gray to gray-green middle ground and light colors higher on the slopes. This scene is typical of the eastern Mexican Highlands landscape character.

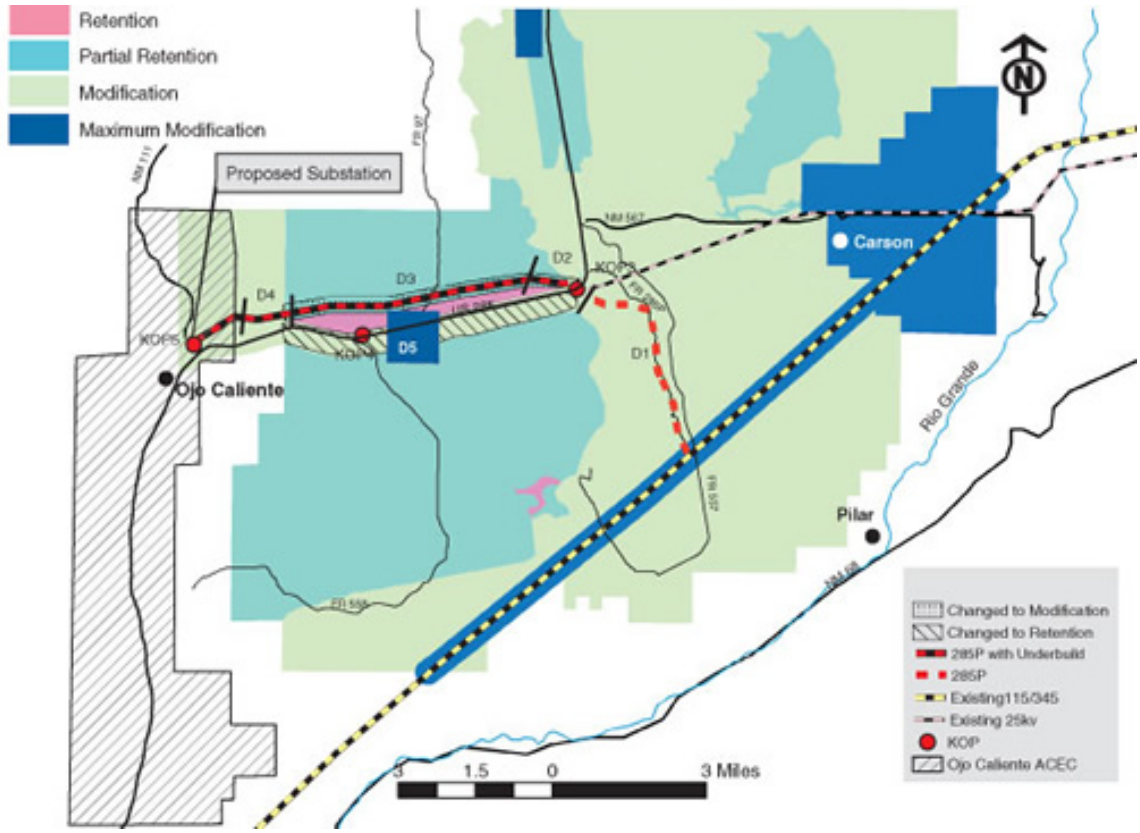

Figure 27. Visual quality impacts from Alternative D.

Effects of West End of Transmission Line and Substation for Alternatives B - D

The development of a power substation is common to Alternatives B through D. The proposed 1.5-acre site would be north of the existing voltage regulators near the NM 111 and U.S. 285 intersection. A substation would be necessary to step down incoming voltage and distribute the electric power to the lower voltage distribution lines. This planned substation would receive the 115 kV line and distribute that power to four smaller distribution circuits. The distribution circuits would use existing lines. A 115 kV substation is approximately the same size as a 69 kV substation. One difference is that the ground clearance needed by the 115 kV line is greater than the 69 kV line. The appearance of the substation would be similar.

The actual intersection is atop a ridge with the voltage regulators closer to the drainage bottom. The view from U.S. 285 of the proposed substation area would be from a superior vantage point. The substation would be approximately 400 to 500 feet from NM 111, and the view from this highway would be from a neutral vantage point (same level). The substation would be located in a sparse piñon-juniper area, with juniper as the dominant tree species. The trees in this area have a maximum height of about 20 feet and tend to be bushy in form. Trees break the monotony of the landscape and present a wide rather than tall appearance.

Figure 28. Typical substation showing the fence, cleared area, and equipment needed for switching the power to other circuits.

The area is within an “Area of Critical Environmental Concern.” This BLM designation is for the recognition and protection of significant cultural resources within the area—especially south of the highway. It indicates the possible long-term use by man. Long-term use and the proximity to Ojo Caliente reinforce the likelihood that much of the area has been occupied, settled, grazed, farmed and otherwise utilized for an extended time period. The existing lines, highway corridors, highway maintenance yard, homes and propane company all cause impacts to the visual quality in the immediate vicinity of the NM 111 and U.S. 285 intersection. The intersection itself is Maximum Modification. Sited below eye level of U.S. 285 and away from NM 111, the proposed substation location meets Class III or Modification.

Several occupied homes view the existing voltage regulators, which would be removed if a substation were installed. Placing the substation 400 to 500 feet further north would provide screening for these homes. Topography, the ridge to the west, the arroyo west of the existing line, and scattered trees provide screening. The view from NM 111 would be screened by existing vegetation and a short time period view of less than 5 seconds. The view from U.S. 285 would be partially screened by topography and vegetation, and a short travel time view of less than 5 seconds. The visual quality for the area of the substation would change from Modification to Maximum Modification.

Figure 29. View of the proposed substation site from U.S. 285 looking to the west. Substation location would be behind and below bushes in the lower center of the photo. Pole to the left of bushes would be within the substation location. Buildings to the left center of the photo are occupied homes.

Option – Tres Piedras Connection

Table 26. Impacts of the option on visual quality

	East of U.S. 285	West of U.S. 285
Existing Condition	Partial Retention	Partial Retention
Option Implemented	Partial Retention	Modification
Overall Designation Following Implementation (area)	Partial Retention	Modification

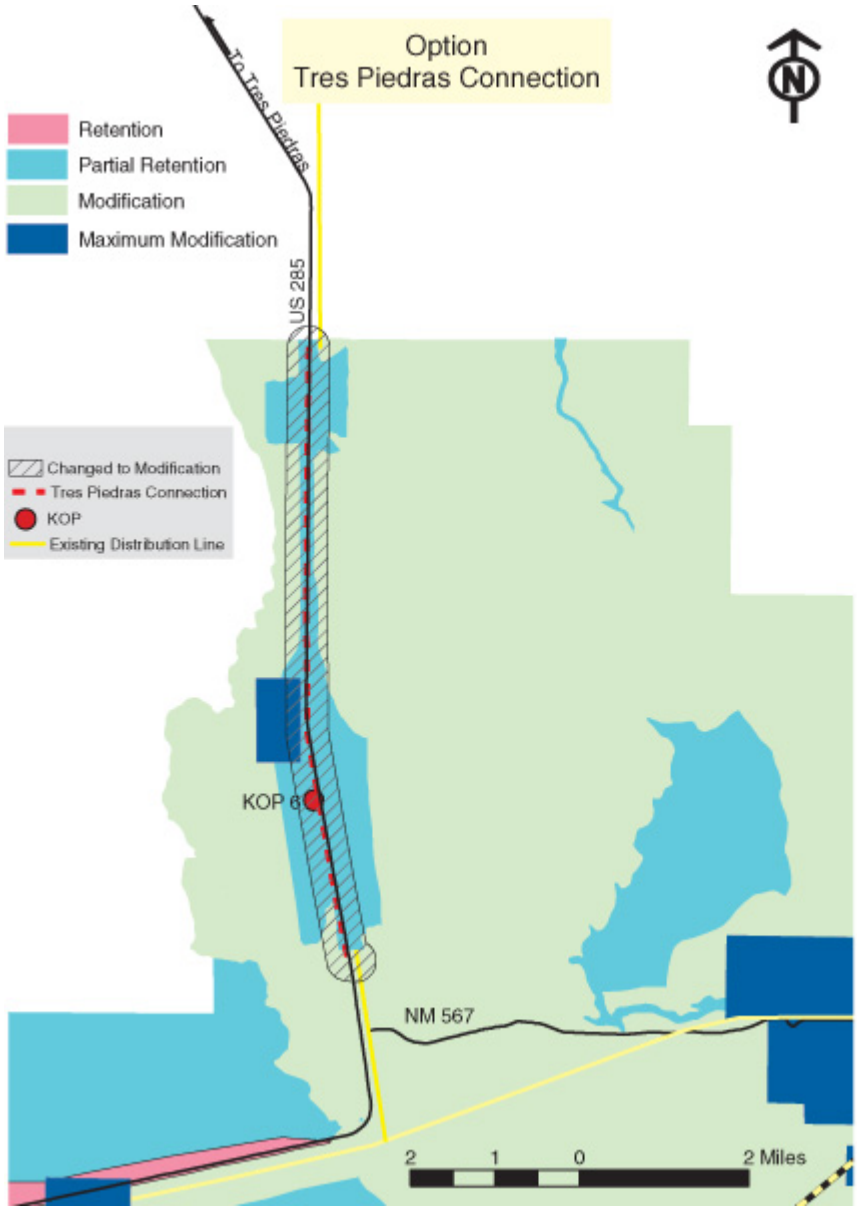

Figure 30. Impacts of the Option on visual quality.

The Tres Piedras Connection would tap into the existing 25 kV distribution line in the vicinity of the microwave station just north of the intersection of NM 567 and U.S. 285. It would cross the highway to the west side and proceed north along U.S. 285, where it would cross back east of the highway to connect into the existing line that comes south from Tres Piedras along U.S. 285. This proposed 25 kV distribution line would be constructed with 30- to 40-foot single poles, along the edge of the existing U.S. 285 highway right-of-way.

This route would total 7.5 miles and traverse through mostly sagebrush with scattered juniper. The proposed distribution line would be visible from U.S. 285 for its entire length. The predominate land features are to the east of U.S. 285. The panorama of the Sangre de Cristo Mountains to the east is striking and dramatic during various seasons and time of day. Cerro

Mojino, a tree covered high point, lies to the west of U.S. 285 and serves as a backdrop zone from the highway. The visual quality for this area is Partial Retention.

Along U.S. 285, the natural view is east toward the Sangre de Cristo Mountains. The proposed line location would be on the west side of the highway, maintaining the view to the east. The visual impact of the Option would change the visual quality on the west side of the highway from Partial Retention to Modification. The visual quality would not change on the east side of U.S. 285.

Cumulative Effects of Alternatives B-D and the Option

Past, present and reasonable activities that contribute to the cumulative effects of visual resources are those with effects that overlap the effects of each alternative within the study area. The *Affected Environment* section describes the past, present and reasonable foreseeable activities that, along with the effects of each of the alternatives, may cumulatively have an effect on visual resources. Past and present effects that overlap with the effects of Alternatives B-D have largely been discussed in the previous sections.

Past and Present Effects from:	Future Effects from:
Bark beetle (2002-2003)	Bark beetle (5-year forecast)
"Push" areas	"Push" areas converting back to natural vegetation
Paved highways	Paved highways
Unpaved roads	Unpaved roads (continued FP management)
Existing power lines	Power lines
Livestock structures	Livestock structures (continued FP management)
Development on private lands	Development on private lands

The most significant of the past actions at landscape level are the piñon-juniper push areas. From a vertical or superior perspective, these are still quite obvious. Once on the ground, and with the passage of time, the contrast is less striking. Other past actions are still quite similar in effects.

In this analysis, the primary source of present cumulative effects on visual resources common to any alternative is infestation of the *Ips* beetle and its effects on piñon trees. In the study area, mortality of piñon trees from bark beetle is beyond epidemic proportions and may reach close to 100 percent throughout the lower elevations. Lower elevation areas that were once piñon-juniper woodland will convert to only juniper. At a distance, patches or epicenters will begin to sorrel out. The needles of affected piñon trees first turn to a rust color that is striking against the landscape. As needles drop, the dominant color changes to that of the trees' branches and trunks—a muted dark brown or gray—that is not as obvious to the viewer.

For the first few years after death of infected trees, needle drop will increase. In 5 to 10 years, dead trees will fall, creating gray masses of dead wood. During this period, firewood gatherers are likely to make their way out to areas where piñon mortality is high. It is anticipated that many of the dead trees, especially along existing roads, would be removed for firewood, thus exposing the

light brown color of the ground. Fewer piñon trees will reduce plant competition, which may increase the size of remaining trees and increase the amount of grass and other plants.

Cumulative Effects of Alternative A

Since the No Action Alternative would not have activities that would affect visual resources, there would be no cumulative effects under this alternative.

Cumulative Effects of Alternative B

Alternative B would change the visual quality in the immediate vicinity, approximately one-quarter mile from the centerline. The change would be the view of poles and wires not in context with the surrounding background. Construction would entail some clearing; however, over time the cleared area would recover, leaving a small disturbance at pole locations. The majority of the line from the existing 115 kV line to within one-quarter mile of U.S. 285 would not be readily visible from the highway. The dark colored poles, nonspecular cables, dark gray-green background, and varied textures and colors of the landscape would serve to hide the line.

In addition to the effects from past and present activities already discussed for Alternative B, it is anticipated that there would be some additional development (buildings) on private lands south of the proposed power line along U.S. 285. Due to economical land prices, the general area could see an increase in building opportunities. On the other hand, the die off of piñon trees could make the area less attractive for development. The addition of buildings in this area would cause this parcel to assume more rural characteristics. Since this parcel is not visible from U.S. 285 due to topography, additional buildings would not change the current visual characteristics of the area. This alternative would not change the availability (locality) of electrical power and, thus, would not influence any development.

Cumulative Effects of Alternative C

Alternative C would change the visual quality in the immediate vicinity, approximately one-quarter mile from the centerline. The change would be the view of poles and wires not in context with the surrounding background. Pole locations would entail some clearing; however, over time the cleared area would recover, leaving a small disturbance at pole locations. Taller poles (averaging 65 feet) and an underbuild would change the overall scenic character along the existing corridor and would be clearly visible through the community of Carson, along NM 567 and U.S. 285 to Ojo Caliente. Sections of the existing line not currently visible from well traveled roads would likely become visible due to pole height. Portions visible would continue to be visible. The vista between Mesa Vibora and Cerro Azul would continue to have a power line in the foreground. The power line would be highlighted against the sky detracting from the views.

In addition to the effects from past and present activities already discussed for Alternative C, it is anticipated that there would be some additional development (buildings) on private lands both in Carson and along U.S. 285. Due to economical land prices, Carson is seeing an increase in building opportunities. The addition of buildings would cause the community to assume more rural characteristics. The private land along U.S. 285 would be available for more home building. The current homes are visible from U.S. 285. Any increase would likely also be visible. Visual quality on private land would change from Partial Retention to Modification by actions of private landowners. Federal lands to the north of U.S. 285 would continue in their current conditions.

However, Federal lands to the south of U.S. 285 in the foreground would change from a condition of Modification to Maximum Modification.

The loss of woodland cover from the bark beetle outbreak has already affected the visual quality along U.S. 285. The homes on private land previously undetectable are now visible due to tree loss. The gray tree trunks have become a focal point for the traveling public and residents. The variety and change in texture in the landscape would detract viewers from focusing on a power line.

Cumulative Effects of Alternative D

Alternative D would change the visual quality in the immediate vicinity, approximately one-quarter mile wide along the centerline. The change would be the view of poles and wires not in context with the surrounding background. Pole locations would entail some clearing; however, over time the cleared area would recover, leaving a small disturbance at pole locations.

The majority of the 115 kV line proposed in Cañada Embudo to within one-quarter mile of U.S. 285 would not be readily visible from the highway or surrounding area. The dark colored poles, nonspecular cables, dark gray-green background, and varied textures and colors of the landscape would serve to hide the line. No private lands would be affected south of U.S. 285 near Cañada Embudo. Reasonably foreseen activities in the vicinity of Cañada Embudo would likely be thinning, removal of firewood, fence building, or other low impact activities. These activities, in addition to the transmission line proposed in Alternative D, would not change the visual quality of the area, except for what has already been discussed.

The segment of corridor crossing U.S. 285 would be near the sweeping curve of U.S. 285, south of Taos Junction. The existing line is visible at this point. The upgraded line would not change the visual quality from Modification.

The segment of the corridor north of U.S. 285 from the highway crossing to the intersection with the existing line would be placed behind ridges and other topographic and vegetation features. This placement would permit the removal of most of the existing 25 kV line adjacent to U.S. 285. This removal would change the present condition from Modification to Retention, except for the private land area. Across private land, the existing 25 kV line or poles would be maintained to provide power for private dwellings. The power source would be relocated to the new line north of U.S. 285. The present highway crossing of a 12.5 kV line would be maintained.

In addition to the effects from past and present activities already discussed for Alternative D, it is possible that there would be some additional development (buildings) on private lands north and south of U.S. 285. Due to economical land prices, the general area is seeing an increase in building opportunities. The addition of buildings in this area would cause private lands to assume more rural characteristics. The current homes are visible from U.S. 285 as are the power lines providing power to these buildings. Any increase would likely be visible from the highway. The visual quality on private land could change from Partial Retention to Modification by actions of private landowners. Federal lands to the north of U.S. 285 would continue in their current visual condition of Retention. However, Federal lands to the south of U.S. 285 in the foreground would change from a condition of Modification to Retention.

The loss of woodland cover from the bark beetle outbreak has already affected the visual quality along U.S. 285. The homes on private land previously undetectable are now visible due to tree

loss. The gray tree trunks have become a focal point for the traveling public and residents. The variety and change in texture in the landscape would detract viewers from focusing on a power line.

Cumulative Effects of Substation and West End of Transmission Line for Alternatives B-D

In addition to the effects from past and present activities already discussed for Alternatives B-D, it is anticipated that there would be some additional development (buildings) on private lands in the Ojo Caliente area near where the proposed substation would be located and the last mile of transmission line that would terminate at the substation. The change would be considered a permanent structure. The substation would be visible from U.S. 285 and NM 111, although for a short time when driving. The Mesa Vista School complex to the west tends to draw the focus. The substation would be below eye level from the heavily traveled U.S. 285.

NM 111 drops down a hill to the west from the highway intersection with U.S. 285. The hill is steep requiring driver concentration. The view to the north is partially blocked by existing vegetation; hence the substation would be difficult to focus on. The view on NM 111 coming from the west is partially blocked by a ridge, then an arroyo, and travel up the ridge to U.S. 285. Trees partially screen the view toward the substation location. The view from existing homes is partially obscured by vegetation, location of the homes and distance to the substation. The highway right-of-way, plus the setback distance totals nearly 0.1 mile or more. The apparent size of the structure becomes reduced at this distance. The visual quality objective would not change from Maximum Modification. Additional development on private land would not change the visual quality level for the area.

Cumulative Effects of the Option

In addition to the effects from past and present activities already discussed for the Option, it is anticipated that there would be some additional development (buildings) on private lands north along U.S. 285. Currently, homes are not obvious from U.S. 285 in the Cerro Mojino area. The private land near U.S. 285 and Cerro Mojino would be available for more development. Depending on the location, any new construction may be visible from the highway.

The addition of power lines in the Cerro Mojino area would reduce the visual quality from Partial Retention to Modification adjacent to the power line corridor. The general area designation would not change from Partial Retention. Visual quality on private land would change from Retention to Modification by actions of private landowners and the addition of the power line. Federal lands along the east side of U.S. 285 would continue in their current visual condition of Partial Retention. The western side of the highway would change to Modification from Partial Retention. This line would not tower above the existing vegetation since the line would be the same approximate height. This would help hide the line and preserve the viewshed to the west in wooded areas.